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W. John Gardenier

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John Pietrangelo  
Heslin Rothenberg Farley & Mesiti P.C.  
5 Columbia Circle  
Albany, NY 12203

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HUSON, GREGORY L

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* W. JOHN GARDENIER and ANTHONY BRENNAN

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Appeal 2009-002729  
Application 10/621,749  
Technology Center 3700

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Decided: June 18, 2010

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Before LINDA E. HORNER, JENNIFER D. BAHR, and KEN B.  
BARRETT, *Administrative Patent Judges*.

BARRETT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

W. John Gardenier and Anthony Brennan (Appellants) seek our review under 35 U.S.C. § 134 of the final rejection of claims 65, 66, 68-70, 74, 77, 80, and 92-94. Claims 73, 84, and 85 have been withdrawn from consideration. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM-IN-PART.

## THE INVENTION

Appellants' claimed invention pertains to a spa head rest through which sound may be transmitted to a bather reclined in the spa. Spec. 4, paras. [0010], [0011]. Claim 65, reproduced below, is representative of the subject matter on appeal.

65. A sound system for a spa, the spa comprising a housing having an upper rim of substantially uniform elevation, the sound system comprising:

a head rest mounted on or below the upper rim so as not to substantially alter the substantially uniform elevation and adapted to support the head of an occupant of the spa, the head rest having at least one sound emitting perforation; and

at least one electronic speaker located below the upper rim of the housing, the at least one electronic speaker positioned to transmit sound through the at least one sound emitting perforation and having a speaker wire extending within the housing.

## THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Diamond	US 4,575,882	Mar. 18, 1986
Kvalvik	US 5,715,546	Feb. 10, 1998
Ludlow	US 5,754,989	May 26, 1998

The following Examiner's rejections are before us for review:

1. Claims 65, 68, 70, 74, 77, 80, and 92-94 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ludlow and Kvalvik; and

2. Claims 66 and 69 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ludlow, Kvalvik, and Diamond.

Appellants also seek review of the Examiner's withdrawal of claims 73, 84, and 85 as being drawn to a non-elected invention. App. Br. 13, 22-23; *see* Final Rej. 4. However, as correctly noted by the Examiner (Ans. 5), this matter is reviewable by petition under 37 C.F.R. § 1.181 (*see Manual of Patent Examining Procedure* (MPEP) §§ 1002 and 1201) and, thus, is not within the jurisdiction of the Board. *See In re Mindick*, 371 F.2d 892, 894 (CCPA 1967).

## ISSUES

Appellants argue that there is no reason to combine the Ludlow and Kvalvik references and that the combination will not result in a spa having a head rest mounted on or below the upper rim so as to not substantially alter the substantially uniform elevation of the spa housing and having a speaker located below the housing upper rim. App. Br. 16-17, 19. The Examiner found that Ludlow discloses a tub having a head rest positioned below the upper rim of the spa, and that Kvalvik teaches the use of a speaker in a tub head rest. Ans. 3. The Examiner concluded that it would have been obvious to the ordinary artisan to employ a speaker in Ludlow's head rest as taught by Kvalvik, and that so doing would satisfy Appellants' "below the upper rim" limitations. *Id.* at 3, 4. Thus, the issues before us include whether a rational reason exists as to why one of ordinary skill in the art would have combined the references and whether the combined references would result in a spa having a substantially uniform housing upper rim elevation that is

not substantially altered by the head rest and a speaker located below the upper rim.

The Examiner found that Diamond teaches the location of the sound source as recited in claim 66. Ans. 4. Appellants contend that this finding is erroneous, and, specifically, that Diamond does not disclose that the sound source is positioned within the housing. App. Br. 21-22. Thus, another issue is whether the Examiner has shown that Diamond discloses a sound source positioned within the housing as recited in Appellants' claim 66.

### FINDINGS OF FACT

We find that the following enumerated findings are supported by at least a preponderance of the evidence.

1. Ludlow discloses a spa having head rests (cushions 175) that do not extend substantially above the spa housing upper rim. Ludlow, col. 7, ll. 20-21; figs. 1, 5, 7H. Figure 5 of Ludlow is reproduced below:

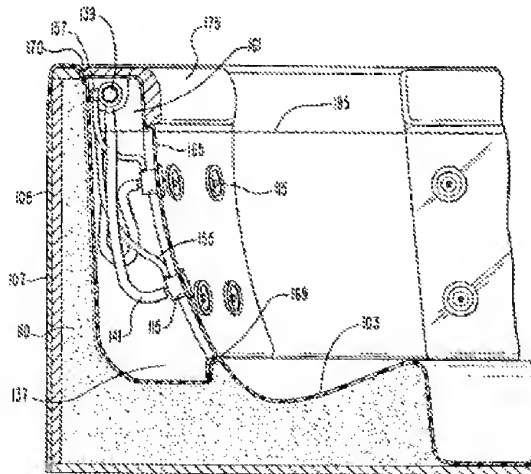


Figure 5 shows a cross-section of a pod (the hollow formed into the spa shell and which contains the water distribution system). *Id.*, col. 2, ll. 55-57; col. 7, l. 1.

2. Kvalvik discloses a tub cushion 10 having a head rest 30. Kvalvik, col. 5, ll. 14-25; fig. 2. Kvalvik teaches: “Many bathers also enjoy listening to music or other sounds as they relax in a tub, and provision for such may be made by means of the head rest 30 discussed above.” *Id.*, col. 5, ll. 26-28.

3. Kvalvik also discloses that modern electronics has provided relatively small audio devices and that the head rest may be hollowed out and modified to accept such a device. *Id.*, col. 5, ll. 28-33; *see also* fig. 2. The audio device includes, *inter alia*, a speaker. *See id.*, col. 5, ll. 41-48; fig. 2. A speaker grille 38 may be provided in the head rest. *Id.*

4. Kvalvik explains that additional comfort and convenience for the bather may be provided by a head rest extending upwardly from the tub cushion. *Id.*, col. 5, ll. 13-16; *see* figs. 1, 2. Kvalvik’s Figure 1 indicates that the height of the head rest above the tub rim (the amount of upward extension) is determined by the location of the bather’s head relative to the rim, and that the magnitude of the upward extension is that necessary to comfortably support the bather’s head.

## ANALYSIS

*Claims 65, 68, 70, 74, 77, 80, and 92-94 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ludlow and Kvalvik*

Appellants present arguments as to the patentability of independent claim 65. App. Br. 16-20. Claim 65 recites “a head rest mounted on or below the upper rim [of the spa housing] so as not to substantially alter the

substantially uniform elevation” and an electronic speaker located below the housing upper rim and positioned to transmit sound through a perforation in the head rest.

The Examiner correctly found that Ludlow teaches a spa having a head rest mounted at or below the rim so as to not substantially alter the housing elevation. Ans. 3, 4; *see* Fact 1. The Examiner also correctly found that Kvalvik teaches the use of a speaker in a tub head rest. Ans. 3, 4; Facts 2, 3. Appellants do not appear to challenge these findings. *See* App. Br. 17 (stating that “the spa of Ludlow may exhibit a desirable, relatively uniform housing rim elevation” but arguing that the addition of Kvalvik’s sound system to Ludlow’s head rest would “substantially alter the elevation”); *id.* (stating that Kvalvik shows audio equipment in a head rest). The Examiner supports the conclusion of obviousness by pointing to Kvalvik’s teaching of the use of a speaker in a bathtub head rest as a reason to modify Ludlow. Final Rej. 2-3; Ans. 3, 4. Kvalvik teaches that it is desirable to place a speaker in a tub head rest because many bathers like to enjoy listening to music or other sounds while they relax in the tub. Fact 2. Therefore, Kvalvik provides a suggestion to modify Ludlow’s spa head rest so as to have a speaker. As such, we disagree with Appellants’ assertions that there is no apparent reason to combine the references’ teachings and that the Examiner has failed to provide an adequate reason for combining the references. App. Br. 15; Reply Br. 3.

Appellants also argue (App. Br. 17) that the combined references will not result in the recited “head rest mounted ... so as not to substantially alter the substantially uniform [housing upper rim] elevation.” Specifically, Appellants argue that “simply combining this Kvalvik audio equipment

mounting with the head rest of Ludlow will inherently ‘substantially alter the substantially uniform elevation’ of Ludlow.” App. Br. 17. This argument fails to address the Examiner’s proposed modification of Ludlow. The Examiner proposes to add speakers to Ludlow’s head rest, not to insert the entirety of Kvalvik’s audio device into the head rest or mount audio equipment on top of Ludlow’s rim. *See* Ans. 3, 4. Furthermore, Appellants’ argument appears to be premised on the belief that Kvalvik’s bathtub head rest extends above the tub rim solely due to the presence of audio equipment inside the headrest. App. Br. 17; Reply Br. 3. We disagree with Appellants’ interpretation of the reference. Kvalvik’s headrest, as shown in Figures 1 and 2, extends above the tub rim for the comfort of the bather. *See* Facts 3, 4. The amount of the head rest that extends above the bathtub rim is a function of the bather’s head height relative to the tub rim, not due to any optional audio components inside the headrest. *See id.* In other words, Kvalvik’s head rest would extend above the tub rim to the same extent regardless as to whether there is a speaker in the headrest. Thus, it does not follow that the addition of a speaker to Ludlow’s existing head rest would “inherently” substantially alter the height of Ludlow’s housing elevation as Appellants suggest, App. Br. 17. We also are not persuaded by Appellants’ implied argument that Diamond’s disclosure of a bathtub having a raised collar for speaker mounting supports the proposition that all spa headrests must be elevated to accommodate speakers. *See* Reply Br. 3. As with Kvalvik’s bathtub, Diamond positions the speakers near the bather’s head, which, by virtue of the tub style, is above the tub’s rim. *See* Diamond, fig. 1. However, placing speakers in Ludlow’s head rest, as the Examiner proposes, would result in speakers located near the bather’s head without the



need for elevating any component. *See* Ludlow, fig. 7H. For the same reasons, we also are not persuaded by Appellants' assertion that, in the modified Kvalvik spa, "the speaker could only be located above the rim of the housing," App. Br. 19.

Appellants maintain that the Kvalvik and Ludlow references are "incompatibl[e]" because the specific piping configuration shown in Ludlow's Figure 5 would interfere with the placement of a speaker or Kvalvik's audio equipment in the headrest. App. Br. 17-18, 20. Thus, argue Appellants, Ludlow's spa either cannot accept a speaker or the speaker could only be located above the rim. *Id.* at 18-19. Appellants' argument improperly focuses on the physical combinability of the references' embodiments rather than what the combined references' teachings suggest to one of ordinary skill. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981) ("The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference .... Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art."); *see also In re Sneed*, 710 F.2d 1544, 1550 (Fed. Cir. 1983) ("[I]t is not necessary that the inventions of the references be physically combinable to render obvious the invention under review."). Nonetheless, there appears to be adequate space for a speaker between the manifold 139 and the outer surface of Ludlow's cushions (where the sound emitting perforations would be). *See* Ludlow, figs. 4, 5. Appellants have not presented persuasive argument or evidence that the mere inclusion of a speaker, *e.g.*, in the vertical portion of Ludlow's head rest, would result in a speaker located above the tub rim or would substantially alter the housing rim elevation.

Appellants appear to argue that the references teach away from the proposed modification because the combination would purportedly result in Kvalvik's audio equipment being "undesirably" exposed to the water level 195 of Ludlow. App. Br. 18-19 (referring to Ludlow's Figure 5 and quoting Kvalvik, col. 5, ll. 48-53); *see also id.* at 19 (arguing that "Ludlow teaches away from introducing the claimed speaker of Kvalvik."). Again, we note that the Examiner's proposed combination has a speaker, not additional audio equipment, in the spa head rest. Ans. 3, 4. Kvalvik's disclosure – rather than discouraging the use of a speaker in Ludlow's spa – indicates that one of ordinary skill in the art of bathtub and spa design knew that speakers could be used around tubs, was well aware of the potential shock hazard, and would have known how to minimize that hazard so as to safely place sound equipment in a spa/bathtub head rest. *See* Kvalvik, col. 5, ll. 34-53. Accordingly, the references do not teach away from the Examiner's proposed combination. *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994) (A reference teaches away from the subject matter of a claim if "a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant."). Furthermore, Ludlow's Figure 5 depicts the water level 195 below the bottom of the head rest 175. Fact 1. Thus, even an unthinking incorporation of a speaker into Ludlow's spa would result in a speaker located above the water line.

We are not persuaded by Appellants' argument that Ludlow's head rest lacks a sound emitting perforation. Reply Br. 2. The Examiner correctly found that Kvalvik discloses a head rest with a speaker and speaker grill 38. Ans. 3; Fact 3. Appellants do not address this finding, and do not

explain why the perforations of a speaker grill would be absent in the modified Ludlow head rest. “Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references.” *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). Similarly, we are not persuaded that the obviousness rejection is “untenable” by Appellants’ discussion of the cited references individually and the assertion that each one lacks particular features. Reply Br. 3.

Appellants do not offer separate arguments for dependent claims 68, 70, 74, 77, 80, and 92-94, but rely on their dependency from claim 65. App. Br. 20. Appellants have not persuaded us of error in the Examiner’s rejection of claim 65 as obvious over Ludlow and Kvalvik, and thus also have not shown error in the rejection of dependent claims 68, 70, 74, 77, 80, and 92-94.

*Claims 66 and 69 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ludlow, Kvalvik, and Diamond*

Claim 66 depends from claim 65 and adds the further requirement of “a source of sound positioned within the housing and distal the at least one speaker ....” Appellants contend that Diamond’s sound source is not in the housing. App. Br. 21-22. In response, the Examiner, citing lines 4-5 of Diamond’s Abstract, finds that Diamond discloses conventional sound sources and discloses “that the device is an ‘integral unit,’” and would include the sound source. Ans. 5. However, Diamond’s Abstract states that the whirlpool bathtub collar is “formed of plastic as an integral unit with the plastic bathtub wall,” not that a sound source is an integral component of the bathtub. Thus, the Abstract does not support the Examiner’s apparent

finding that the sound source is integral with and positioned within the spa housing. The Examiner does not point to any other portion of Diamond that identifies the location of the sound source, and does not maintain that it would have been obvious to position the sound source within the housing. Ans. 3-4, 5. As such, we cannot sustain the rejection of claim 66.

Claim 69 depends from independent claim 65 via claim 68, and does not depend from claim 66. Appellants do not offer separate arguments as to the patentability of claim 69 but instead rely on its dependency from claim 65. App. Br. 21-22. For the reasons given above, we are not persuaded that the Examiner's rejection of claim 65 is erroneous, and therefore Appellants also have not shown error in the rejection of claim 69.

### CONCLUSIONS

A rational reason exists as to why one of ordinary skill in the art would have combined the references and the combined references would have resulted in a spa having a substantially uniform housing upper rim elevation that is not substantially altered by the head rest and a speaker located below the upper rim.

The Examiner has not shown that Diamond discloses a sound source positioned within the housing as recited in Appellants' claim 66.

### DECISION

The decision of the Examiner to reject claim 66 is reversed. The decision of the Examiner to reject claims 65, 68-70, 74, 77, 80, and 92-94 is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED-IN-PART

mls

JOHN PIETRANGELO  
HESLIN ROTHENBERG FARLEY & MESITI P.C.  
5 COLUMBIA CIRCLE  
ALBANY, NY 12203